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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,479	06/08/2001	Laurent Frelechoux	CH9-2000-0023	2236
877	7590	11/14/2005	EXAMINER	
IBM CORPORATION, T.J. WATSON RESEARCH CENTER P.O. BOX 218 YORKTOWN HEIGHTS, NY 10598			LEE, ANDREW CHUNG CHEUNG	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/877,479

Applicant(s)

FRELECHOUX ET AL.

Examiner

Andrew C. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-28 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 18, 2, 3, 8, 9, 12, 13, 14, 15, 16, 17, 19 are rejected under 35 U.S.C. 102(e) as being anticipated by the article "Proxy PNNI Augmented Routing (PROXY PAR)" by Przygienda et al.

Regarding claims 1, 18, Przygienda et al. disclose the limitation of a method for managing protocol information in a PAR-enabled device of a PNNI hierarchical network (Figure 1, page 373, column 2, page 372, third paragraph), the method comprising: assigning topology indicators to protocol information encapsulated in respective PAR PTSEs received by the PAR-enabled device from the network (page 371, column 2, lines 3 – 9), the assignment of a said information in a said PAR PTSE being dependent on the location of the network node which originated that PAR PTSE in the PNNI topology as seen by the PAR-enabled device (page 371, column 2, lines 9 – 13); and supplying protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned thereto (page 371, column 2, lines 15 – 25).

Regarding claim 2, Przygienda et al. disclose the limitation of a method according to claim 1 wherein the protocol information is supplied to the protocol device in an order dependent on the assigned topology indicators (page 371, column 2, lines 33 – 35).

Regarding claim 3, Przygienda et al. disclose the limitation of a method according to claim 1 wherein the protocol information encapsulated in a received PAR PTSE is supplied to the protocol device with a tag comprising the assigned topology indicator (page 373, column 2, lines 11 – 18).

Regarding claim 8, Przygienda et al. disclose the limitation of a method according to claimed wherein each topology indicator comprises a level value indicative of the level in the PNNI hierarchy of the network node which originated the PAR PTSE containing the protocol information to which that topology indicator is assigned (page 372, column 2, last paragraph, lines 1 – 9).

Regarding claim 9, Przygienda et al. disclose the limitation of a method according to claim 8 wherein said level value is indicative of the level of said network node in the PNNI hierarchy relative to the level of said PAR-enabled device in the PNNI hierarchy (page 372, column 2, last paragraph, lines 1 – 9; page 373, column 1, first paragraph).

Regarding claims 12, 13, Przygienda et al. discloses the limitation of a method according to claimed including assigning the topology indicators, and supplying the protocol information to the protocol device in response to a request from the protocol device (page 372, column 1, second paragraph, lines 4 – 14).

Regarding claim 14, Przygienda et al. disclose the limitation of a method according to claim 12 wherein the PAR-enabled device is configured as a Proxy-PAR

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server and the protocol device is configured as a Proxy-PAR client (page 371, column 2, lines 15 – 25).

Regarding claim 15, Przygienda et al. disclose the limitation of a method according to claimed wherein the step of assigning the topology indicators includes the step of deriving the topology indicators for the protocol information in respective PAR PTSEs (page 371, column 2, lines 3 – 9; lines 20 – 25).

Regarding claim 16, Przygienda et al. disclose the limitation of a method according to claimed wherein said protocol information comprises IP information (page 374, column 2, paragraph 4, lines 1 – 2).

Regarding claim 17, Przygienda et al. disclose the limitation of a method according to claimed wherein said protocol device comprises a router (page 371, column 2, lines 20 – 25).

Regarding claim 19, Przygienda et al. disclose the limitation of a method for facilitating the use of protocol information by a protocol device associated with a PAR-enabled device of a PNNI hierarchical network (Figure 1, page 373, column 2, page 372, third paragraph), the method comprising: in the PAR-enabled device, assigning topology indicators to protocol information encapsulated in respective PAR PTSEs received by the PAR-enabled device from the network (page 371, column 2, lines 3 – 9), the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location of the network node which originated that PAR PTSE in the PNNI topology as seen by the PAR-enabled device (page 371, column 2, lines 9 – 13), and supplying protocol information encapsulated in each received PAR PTSE to said

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protocol device with a tag comprising the topology indicator assigned thereto (page 371, column 2, lines 15 – 25); and in the protocol device, selecting, in dependence on the tags supplied with the protocol information by the PAR-enabled device, at least one further protocol device with which to establish a relationship from further protocol devices identified by the supplied protocol information (page 373, column 2, lines 11 – 18).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 5, 6, 7, 20, 21, 22, 23, 24, 26, 27, 28, 25 are rejected under 35 U.S.C. 102(e) as being unpatentable over the article “Proxy PNNI Augmented Routing (PROXY PAR)” by Przygienda et al. in view of Rexford et al. (US 6633544 B1).

Regarding claim 4, Przygienda et al. disclose the limitation of a method for managing protocol information in a PAR-enabled device of a PNNI hierarchical network (Figure 1, page 373, column 2, page 372, third paragraph), Przygienda et al. do not disclose expressly a method according to claimed wherein each topology indicator comprises a distance value indicative of a logical distance in said PNNI topology between the PAR-enabled device and the network node which originated the PAR PTSE containing the protocol information to which that topology indicator is assigned. Rexford

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et al. disclose the limitation of a method according to claimed wherein each topology indicator comprises a distance value indicative of a logical distance in said PNNI topology between the PAR-enabled device and the network node which originated the PAR PTSE containing the protocol information to which that topology indicator is assigned (page 5, column 1, lines 19 – 24; column 11, lines 40 – 47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Przygienda et al. to include a method according to claimed wherein each topology indicator comprises a distance value indicative of a logical distance in said PNNI topology between the PAR-enabled device and the network node which originated the PAR PTSE containing the protocol information to which that topology indicator is assigned such as that taught by Rexford et al. in order to provide a method and apparatus for computing, storing and allocating efficient routing connections between nodes in a network (as suggested by Rexford et al., see column 1, lines 12 – 14).

Regarding claim 5, Przygienda et al. disclose the limitation of a method for managing protocol information in a PAR-enabled device of a PNNI hierarchical network (Figure 1, page 373, column 2, page 372, third paragraph), Przygienda et al. do not disclose expressly a method according to claimed wherein said logical distance is defined as a function of hop count. Rexford et al. disclose the limitation of a method according to claimed wherein said logical distance is defined as a function of hop count (column 17, lines 10 – 16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Przygienda et al. to include a method according to claimed wherein said logical distance is defined as a function of hop count

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such as that taught by Rexford et al. in order to provide a method and apparatus for computing, storing and allocating efficient routing connections between nodes in a network (as suggested by Rexford et al., see column 1, lines 12 – 14).

Regarding claim 6, Przygienda et al. disclose the limitation of a method according to claimed wherein each topology indicator comprising a distance value indicative of a logical distance in said PNNI topology between the PAR-enabled device and the network node. Przygienda et al. do not disclose expressly a method according to claimed wherein said logical distance is defined as a function of PNNI costs. Rexford et al. disclose a method according to claimed wherein said logical distance is defined as a function of PNNI costs (Abstract, lines 1 – 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Przygienda et al. to include a method according to claimed wherein said logical distance is defined as a function of PNNI costs such as that taught by Rexford et al. in order to provide a method and apparatus for computing, storing and allocating efficient routing connections between nodes in a network (as suggested by Rexford et al., see column 1, lines 12 – 14).

Regarding claim 7, Przygienda et al. disclose the limitation of a method for managing protocol information in a PAR-enabled device of a PNNI hierarchical network (Figure 1, page 373, column 2, page 372, third paragraph), Przygienda et al. do not disclose expressly a method according to claimed wherein said logical distance is defined as a function of dynamic metrics of the PNNI network. Rexford et al. disclose the limitation of a method according to claimed wherein said logical distance is defined as a function of dynamic metrics of the PNNI network (column 3, lines 9 – 37). It would have

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been obvious to one of ordinary skill in the art at the time the invention was made to modify Przygienda et al. to include a method according to claimed wherein said logical distance is defined as a function of dynamic metrics of the PNNI network such as that taught by Rexford et al. in order to provide a method and apparatus for computing, storing and allocating efficient routing connections between nodes in a network (as

Regarding claims 20, 21, 22, 23, 24, 26, 27, 28, Przygienda et al. disclose the limitation of a PAR-enabled device for connection in a PNNI hierarchical network (Figure 1, page 373, column 2, page 372, third paragraph), Przygienda et al. disclose the PAR-enabled device comprising: defining the PNNI topology as seen by the PAR-enabled device when connected in a said network, and PAR PTSEs received by the PAR-enabled device from the network (page 371, column 2, lines 3 – 9); and to assign topology indicators to protocol information encapsulated in respective received PAR PTSEs, the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location in said PNNI topology of the network node which originated that PAR PTSE (page 371, column 2, lines 9 – 13); wherein to manage the supply of protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned thereto (page 371, column 2, lines 15 – 25). However, Przygienda et al. do not disclose expressly the PAR-enabled device comprising: memory for storing topology data, defining the PNNI topology as seen by the PAR-enabled device when connected in a said network, and PAR PTSEs received by the PAR-enabled device from the network; and control logic configured to assign topology indicators to protocol

information encapsulated in respective received PAR PTSEs, the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location in said PNNI topology of the network node which originated that PAR PTSE; wherein the control logic is configured to manage the supply of protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned thereto. Rexford et al. disclose the limitation of the PAR-enabled device comprising: memory for storing topology data, defining the PNNI topology as seen by the PAR-enabled device when connected in a said network, and PAR PTSEs received by the PAR-enabled device from the network (Fig. 2, element 210; column 8, lines 40 – 52); and control logic configured to assign topology indicators to protocol information encapsulated in respective received PAR PTSEs, the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location in said PNNI topology of the network node which originated that PAR PTSE (Fig. 2, element 220; column 8, lines 40 – 52; column 22, lines 20 – 33); wherein the control logic is configured to manage the supply of protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned (column 22, lines 34 – 63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Przygienda et al. to include the PAR-enabled device comprising: memory for storing topology data, defining the PNNI topology as seen by the PAR-enabled device when connected in a said network, and PAR PTSEs received by the PAR-enabled device from the network;

and control logic configured to assign topology indicators to protocol information encapsulated in respective received PAR PTSEs, the assignment of a said topology indicator to protocol information in a said PAR PTSE being dependent on the location in said PNNI topology of the network node which originated that PAR PTSE; wherein the control logic is configured to manage the supply of protocol information encapsulated in received PAR PTSEs to a protocol device associated with said PAR-enabled device in a manner dependent on the topology indicators assigned thereto such as that taught by Rexford et al. in order to provide a method and apparatus for computing, storing and allocating efficient routing connections between nodes in a network (as suggested by Rexford et al., see column 1, lines 12 – 14).

Regarding claims 25, Przygienda et al. discloses the limitation of a PNNI hierarchical network comprising a plurality of PAR-enabled devices and a plurality of protocol devices (Figure 1, page 373, column 2, page 372, third paragraph), each PAR-enabled device being associated with a said protocol device for communication over the network of protocol information generated by that protocol device, wherein said PAR-enabled devices include: at least one PAR-enabled device according to claim 20 (page 371, column 2, lines 14 – 25).

Allowable Subject Matter

6. Claims 10, 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL

Nov 01, 2005


Ajit Patel
Primary Examiner